

**REMARKS**

This is in full and timely response to the Office Action dated March 30, 2006.  
Reexamination in light of the following remarks is respectfully requested.

Claims 1, 3-4 and 6-7 are currently pending in this application, with claims 1 and 4 being independent.

*No new matter has been added.*

**Rejections under 35 U.S.C. §103**

Paragraph 3 of the Office Action indicates that claims 1-3 have been rejected under 35 U.S.C. §103 as allegedly being unpatentable over either one of Japanese Application Publication No. 03-193510 to Kajiwara or Japanese Application Publication No. 11-170824 to Numata in view of Japanese Application Publication No. 2001-113902 to Akiyoshi et al. (Akiyoshi), U.S. Patent No. 4,034,792 to Martin, U.S. Patent No. 4,343,342 to McDonald, U.S. Patent No. 6,418,993 to Sakamoto et al. (Sakamoto), and U.S. Patent No. 6,536,368 to Hendrie.

Paragraph 4 of the Office Action indicates that claims 4 and 6 have been rejected under 35 U.S.C. §103 as allegedly being unpatentable over Kajiwara, Numata, Akiyoshi, Martin, McDonald, Sakamoto, and Hendrie, and in further view of Japanese Application Publication No. 02-106330 to Yamada et al. (Yamada).

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made, then a **new non-final Office Action** is respectfully requested.

These rejections are traversed at least for the following reasons.

**Claim 1**- The features of claim 2 have been wholly incorporated into claim 1 to form amended claim 1. Thus, prior claim 2 is now amended claim 1. Within amended claim 1, the volume adjusting members are arranged at equal intervals in the tire circumferential direction.

Support for this feature may be found within the specification as originally filed at, for example, paragraph [0016]. This paragraph includes that *the volume adjusting members 9 are arranged at equal intervals in the tire circumferential direction in order to suppress weight unbalance.*

This description is provided for illustrative purposes and is not intended to limit the scope of the invention.

**Kajiwara** - Kajiwara arguably teaches the presence of a reinforcement layer 9 (Kajiwara at Figures 1, and 2).

However, the Office Action admits that Kajiwara fails to disclose, teach or suggest the reinforcement layer 9 being intermittently arranged (Office Action at page 2).

Thus, Kajiwara fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Moreover, Kajiwara is also silent as to the reinforcement layer 9 being arranged at equal intervals in the tire circumferential direction.

Thus, Kajiwara fails to disclose, teach or suggest that the volume adjusting members are arranged at equal intervals in the tire circumferential direction.

**Numata** - Numata arguably teaches the presence of a reinforcement layer 21 (Kajiwara at Figures 1, 2, and 5).

However, the Office Action admits that Numata fails to disclose, teach or suggest the reinforcement layer 21 being intermittently arranged (Office Action at page 2).

Thus, Numata fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Moreover, Numata is also silent as to the reinforcement layer 21 being arranged at equal intervals in the tire circumferential direction.

Thus, Numata fails to disclose, teach or suggest that the volume adjusting members are arranged at equal intervals in the tire circumferential direction.

Akiyoshi - Akiyoshi arguably teaches a wheel structure for a vehicle that includes a bulk-head 15" (Akiyoshi at Figures 9(a) and 9(b)).

Within amended claim 1, the volume adjusting members are arranged at equal intervals in the tire circumferential direction.

In this regard, it is well established under U.S. patent practice and procedures that drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes *if the specification is completely silent* on the issue. *Hockerson-Halberstadt Inc. v. Avia Group International Inc.*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000). See M.P.E.P. §2125 (proportions of features in a drawing are not evidence of actual proportions when drawings are not drawn to scale).

Moreover, arguments based on the measurement of a drawing are of little value absent any written description in the specification of the quantitative values allegedly shown within the drawings. *In re Wright*, 569 F.2d 1124, 1127, 193 USPQ 332, 335 (CCPA 1977).

Here, the Office Action fails to identify any written description in the specification of Akiyoshi to show that the bulk-head 15" is arranged at equal intervals in the tire circumferential direction.

Thus, Akiyoshi fails to disclose, teach or suggest that the volume adjusting members are arranged at equal intervals in the tire circumferential direction.

Martin - Martin arguably teaches a pneumatic tire having beads 11, a rib 12, and a carcass 13 (Martin at Figures 1-6).

However, Martin fails to disclose, teach or suggest the rib 12 as being intermittently arranged.

In addition, Martin fails to disclose, teach or suggest the rib 12 as being between the carcass 13 and an inner layer in the bead 11.

Thus, Martin fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

McDonald - McDonald arguably teaches a pair of predetermined angularly-spaced substantially radial projections 34 bridging annular band 36 and connecting projections 30 and 32 (McDonald at Figure 1).

However, McDonald fails to disclose, teach or suggest any of the projections 30, 32 and 34 as being between the carcass layer and the inner layer.

Although McDonald arguably teaches pluralities of modules 52 or 54 (McDonald at Figures 8 and 9), McDonald fails to disclose, teach or suggest any of the modules 52 or 54 as being between the carcass layer and the inner layer.

Thus, McDonald fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Sakamoto - Sakamoto arguably teaches the presence of a wheelrim protector 9 (Sakamoto at Figures).

However, Sakamoto fails to disclose, teach or suggest the wheelrim protector 9 as being intermittently arranged.

In addition, Sakamoto fails to disclose, teach or suggest the wheelrim protector 9 as being between the carcass layer and the inner layer.

Thus, Sakamoto fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Hendrie - Hendrie arguably teaches the presence of grooves 30, 32 (Hendrie at Figure 11).

However, Hendrie fails to disclose, teach or suggest the grooves 30, 32 as being between the carcass layer and the inner layer.

Thus, Hendrie fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Motivation - The Office Action contends that it is emphasized that the concept of forming tire layers in a discontinuous manner is extremely well known and conventional in the tire industry and as such, one of ordinary skill in the art at the time the invention was made would have found it obvious to incorporate such a design in either Kajiwara or Numata depending on the desired distribution of reinforcement (Office Action at pages 2-3).

In response to this contention, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. M.P.E.P. §2143.01(III). Moreover, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness. M.P.E.P. §2143.01(IV).

But the assertions made within the Office Action fail to provide objective evidence sufficient to show that the skilled artisan would have been motivated to rely upon the teachings of Martin, McDonald, Sakamoto, or Hendrie to modify either the reinforcement layer 9 of Kajiware or the reinforcement layer 21 Numata. The lack of objective evidence especially apparent when taking into consideration that a structure that is substantially similar to either the reinforcement layer 9 of Kajiware or the reinforcement layer 21 Numata is absent from within Martin, McDonald, Sakamoto, and Hendrie. M.P.E.P. §2144.06.

Unexpected results - The Office Action contends that no showing of unexpected results has been provided (Office Action at page 3)

In response to this contention, paragraphs [0024]-[0035] provide a showing of unexpected results.

Claim 4 - Claim 6 is dependent upon claim 4. Claim 4 is drawn to a method for manufacturing a pneumatic tire, comprising the steps of:

intermittently crimping volume adjusting members on both side sections of a sheet inner liner material in a longitudinal direction thereof beforehand;

winding the inner liner material on an outer peripheral side of a forming drum;

winding a sheet carcass material on an outer peripheral side of the inner liner material;

forming an unvulcanized tire containing the inner liner material and the carcass material; and

vulcanizing the unvulcanized tire,

wherein the volume adjusting members are intermittently arranged in a tire circumferential direction between the inner liner material and the carcass material.

The rejection of claims 4 and 6 is traversed at least for the reasons provided hereinabove with respect to claim 1, and for the following reasons.

Yamada - Yamada arguably teaches the manufacture of a carcass of a pneumatic tire. In particular, Yamada arguably teaches that when a rubber-coating cord stripe 9 to be filled in the turnup ply of a carcass 1 is wound on a case band forming drum 10 in a step of forming a case band, a rubber sheet 11 to become a squeegee rubber 8 is disposed from a position opposed to the turnup end of ply to an outside, or integrally applied in case of connecting the stripe 9 prior to the winding to form the case band (Yamada at Abstract).

Whereas Yamada arguably teaches a carcass 1 is wound on a case band forming drum 10, the Office Action fails to show where within Yamada that there is to be formed the step of intermittently crimping volume adjusting members on both side sections of a *sheet inner liner material* in a longitudinal direction thereof beforehand.

Figures 2 and 3 of Yamada arguably teach the presence of a drum 10, a stripe 9, and a rubber sheet 11. However, Figures 2 and 3 of Yamada fail to disclose, teach, or suggest the presence of an inter liner material.

Figure 1 of Yamada arguably teaches the presence of a carcass 1. The Abstract of Yamada arguably teaches the rubber sheet 11 (Yamada at Figures 2 and 3) that is to become a squeegee rubber 8 (Yamada at Figure 1).

However, Yamada fails to disclose, teach, or suggest that the squeegee rubber 8 is between an inner liner material and the carcass 1.

Yamada also fails to disclose, teach or suggest the rubber sheet 11 as being intermittently crimped.

Thus, Yamada fails to disclose, teach, or suggest the step of intermittently crimping volume adjusting members on both side sections of a sheet inner liner material in a longitudinal direction thereof beforehand.

Combination of Akiyoshi and Kajiwara - The Office Action contends that that the noise reducing system of or according to Akiyoshi and that of or according to Kajiwara are extremely similar to each other.

In response, according to the noise reducing system pursuant to Akiyoshi, the sectional area size of the closed cavity inside a tire is varied in circumferential direction of the tire by intermittently arranging bulkheads 15 of Akiyoshi, whereby noise due to a resonance phenomenon can be reduced.

In contrast to the above, then, in the case of the noise reducing system according to Kajiwara, in order to reduce the road noise caused by that vibrations a tire receives against a road surface are transmitted to a vehicle via the tread, the sidewalls and bead portions of the tire, a rubber reinforcing member 9 of Kajiwara is incorporated inside the bead portion: In greater detail, with the rubber reinforcing member 9 arranged inside the bead portion, the carcass outline is optimized so that the tension to act on a body part of the carcass structure when the bead portion undergoes a shape change (deformation) is lowered, whereby the mad noise generation is lowered.

Thus, with respect to the noise reducing mechanism, Akiyoshi and Kajiwara completely differ from each other.

Moreover, in the case of Kajiwara, it is indispensable to optimize the carcass outline, and accordingly it is impossible to intermittently arrange the rubber reinforcing member 9. As a result, the Office Action fails to explain why the skilled artisan would have been motivated to combine the features of Akiyoshi with those found within Kajiwara.

Response to arguments - The Office Action contends that, in regards to the results of Table 2, they represent a comparison between the inventive structure and structures having the members on the interior of the tire cavity at the crown and bead portion such a comparison is not seen to include the closest prior art because each of Kajiwara and Numata expressly teach a tire construction having a "volume adjusting member" between the carcass and inner liner (Office Action at page 5). The Office Action further contends it is suggested that applicant compare the inventive tire construction with that of Kajiwara or Numata (applicant has not provided a

conclusive showing of unexpected results over the closest prior art, that being Kajiwara and Numata) (Office Action at page 5).

In response to these contentions, Kajiwara contemplates to reduce the road noise, not the noise due to a resonance phenomenon, and Kajiwara can never be regarded as the closest prior art: Thus, the Table 2 of the present application is believed to be appropriate in respect of the entry of results therein.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

### **Conclusion**

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753. If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Dated: June 22, 2006

Respectfully submitted,

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